

**ACER MACROPHYLLUM - ALNUS RUBRA /  
POLYSTICHUM MUNITUM - TELLIMA GRANDIFLORA**

Bigleaf maple - red alder / sword fern - fringecup

Abbreviated Name: ACMA-ALRU/POMU-TEGR

Sample size = 18 plots

**DISTRIBUTION:** Occurs mostly around shorelines of Puget Sound and adjacent marine waters. Also in western end of the Columbia River Gorge, Skamania and Clark counties, in adjacent northwestern Oregon, and probably in southwestern BC (Fraser Lowland). May occur rarely elsewhere in the Puget Trough of Washington.

**GLOBAL/STATE STATUS:** G2G3S2. Occurs in a naturally limited habitat that has been considerably impacted by development and non-native species invasions. These threats continue. Most remaining examples are small, fragmented, and degraded to varying degrees by non-native plant species.

**ID TIPS:** Dominated by bigleaf maple or red alder. Located on very steep slopes, landslide deposits or coastal bluffs. Fringecup usually provides >1% cover.

**ENVIRONMENT:** Typically located on steep slopes, usually adjacent to saltwater. The sites are moderately moist to very moist and appear to be nutrient-rich. All aspects are represented, though northerly to easterly aspects are more common. Soils are not well represented by existing soil maps because of the complexity of these coastal bluff deposits. Parent materials likely include glacial till, advance glacial outwash, and glacial lake and marine sediments. Seeps are frequent on these slopes, resulting in locally wetter microsites. Soil texture is probably quite variable from loamy sand to silty clay loam.

**Precipitation:** 26-73 inches (mean 39)

**Elevation:** 20-600 feet

**Aspect/slope:** various/ slope 36-110% (mean 80)

**Slope position:** mid, lower, upper

**Special:** landslide deposits, glacial bluffs

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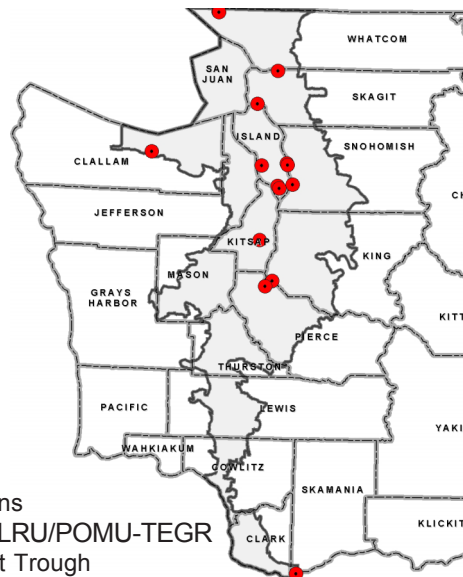
**Vegetation Composition Table (selected species):**

Con = constancy, the percent of plots within which each species was found;

Cov = cover, the mean crown cover of the species in plots where it was found.

Trees	Kartesz 2003 Name	Con	Cov
bigleaf maple	Acer macrophyllum	94	56
red alder	Alnus rubra	83	36
Douglas-fir	Pseudotsuga menziesii var. menziesii	50	15
western redcedar	Thuja plicata	33	4
western hemlock	Tsuga heterophylla	17	11
<b>Shrubs, Subshrubs</b>			
trailing blackberry	Rubus ursinus var. macropetalus	100	6
red elderberry	Sambucus racemosa var. racemosa	72	11
oceanspray	Holodiscus discolor	67	11
thimbleberry	Rubus parviflorus	61	9
salmonberry	Rubus spectabilis var. spectabilis	56	15
Indian plum	Oemleria cerasiformis	44	6
blackcap	Rubus leucodermis	39	3
dwarf Oregongrape	Mahonia nervosa	39	3
common snowberry	Symphoricarpos albus var. laevigatus	33	15
beaked hazelnut	Corylus cornuta var. californica	33	13
baldhip rose	Rosa gymnocarpa	33	4
vine maple	Acer circinatum	6	30
<b>Graminoids</b>			
Columbia brome	Bromus vulgaris	67	2
Dewey's sedge	Carex deweyana var. deweyana	39	2
<b>Forbs and Ferns</b>			
sword fern	Polystichum munitum	100	33
fringecup	Tellima grandiflora	89	9
stinging nettle	Urtica dioica ssp. gracilis	67	12
licorice fern	Polypodium glycyrrhiza	50	1
Siberian springbeauty	Claytonia siberica var. siberica	44	6
cleavers	Galium aparine	44	3
spreading woodfern	Dryopteris expansa	39	3
giant horsetail	Equisetum telmateia var. braunii	22	7
Hooker's fairybells	Prosartes hookeri var. oregana	22	6
large false Solomon's seal	Maianthemum racemosum ssp. amplexicaule	22	6
cow-parsnip	Heracleum maximum	17	15

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Plot locations  
of ACMA-ALRU/POMU-TEGR  
in the Puget Trough

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**DISTURBANCE/SUCCESSION:** Mass movements (landslides) favor the establishment and maintenance of deciduous trees on these sites. This community type is strongly associated with this natural process. Bigleaf maple appears capable of surviving small or slow mass movements, and sprouts vigorously after major damage to a mature stem, unlike the conifers and alder. Fire and wind also affect these forests. Conifers would be expected to increase in abundance in the face of long-term substrate stability, but this does not appear typical of these sites.

**VEGETATION:** Dominated by bigleaf maple and/or red alder; the former is usually more abundant than the latter. Douglas-fir occurs in about half of the stands but is subordinate in importance to the broadleaf species. Western hemlock or western redcedar sometimes occur in relatively small amounts, usually in the understory or subcanopy. The understory is characterized by an abundance of sword fern, and presence of fringe cup, which averages 9% cover. A shrub layer is usually present, but varies considerably in composition. Shrub species that occur as dominants or co-dominants include oceanspray, salmonberry, red elderberry, and, less frequently, beaked hazelnut, common snowberry, or vine maple. Other species usually present include stinging nettle, Columbia brome, thimbleberry, trailing blackberry, and licorice fern (an epiphyte).

**CLASSIFICATION NOTES:** Also described by Chappell (2001). Its relationship to alder communities on landslides in adjacent mountainous ecoregions is unclear.

**MANAGEMENT NOTES:** Non-native English ivy (*Hedera helix*) and Himalayan blackberry (*Rubus discolor*) are prolific invaders in this association. Many other non-natives can occur. Development on land above the bluffs on which this association occurs can impact rates and types of mass movement processes.

**BIODIVERSITY NOTES:** Chain-fern (*Woodwardia fimbriata*), a state sensitive species, occurs in this plant association.